

Available online at www.sciencedirect.com**ScienceDirect**

Procedia - Social and Behavioral Sciences 118 (2014) 357 – 364

Procedia
Social and Behavioral Sciences

SoLLs.INTEC.13: International Conference on Knowledge-Innovation-Excellence: Synergy in Language Research and Practice

Metacognitive Reading Strategies of Less Proficient Tertiary Learners: A Case Study of EFL Learners at a Public University in Makassar, Indonesia

Abidin Pammu^{a,*}; Zaini Amir^b & Tengku Nor Rizan Tengku Mohd. Maasum^c

*School of Language Studies and Linguistics, Faculty of Social Sciences and Humanities,
Universiti Kebangsaan Malaysia, Bangi 43600 Selangor, Malaysia*

Abstract

Despite massive development of research on metacognitive reading strategies in different contexts and with various learner characteristics, still little has been reported about profiles of metacognitive reading strategies of less proficient learners. This paper addresses the profiles of metacognitive reading strategies of the less proficient EFL learners in Indonesia based on a case study research conducted at English Department, Hasanuddin University. Data were gathered from forty (40) less proficient learners using MARS questionnaire (Metacognitive Awareness Reading Strategy Inventory) that has been used in both English as a second and foreign language contexts. The questionnaires were analyzed using descriptive and inferential statistics which showed the level of metacognitive awareness on the three sub-scales of the inventory. Findings showed that there is a high level of metacognitive awareness for the Problem Solving Strategy ($M=3.62$, $SD=0.57$) but only at medium level for both Global ($M=3.16$, $SD=0.61$) and Support Strategy ($M=3.24$, $SD=0.71$). The finding warrants emerging needs of the reading strategy instruction that concerns the global analysis of the text as well as the use of outside reference materials in order to generate their metacognitive awareness to improve their proficiency level.

© 2013 The Authors. Published by Elsevier Ltd. Open access under [CC BY-NC-ND license](https://creativecommons.org/licenses/by-nc-nd/4.0/).
Selection and peer-review under responsibility of Universiti Kebangsaan Malaysia.

Key words: metacognitive reading strategies; less proficient learners; problem solving strategy; global strategy; support strategy

1. Introduction

Reading skill is strikingly an important aspect of education and is one of the nation's philosophies of empowering people in Indonesia. However, the reading instruction has been characteristically a reflection of the first language teaching method, often associated with traditional method. According to Cahyono and Widiati (2006:36), "... reading text in the target language was the central activity in language teaching that placed

* Corresponding author. Tel.: +60-000000-000; fax: +00-000-0.

E-mail address: abidinpammu60@yahoo.com

emphasis on matching words in the text with meanings in the students' native tongue". The reading instruction of this kind gave little attention to the process of understanding longer texts (Dubin & Bycina, 1991). This trend did not support the need of reading for academic purposes, as it did not yet gain theoretical support, causing a vacuum in the theory of reading (Richards & Renandya, 2002). Teaching practitioners as well as educators in the country are constantly seeking better ways of improving the teaching expertise with the provision of teacher training at both school and tertiary levels. There has been even special interest on developing professionalism in the field of teaching English as a foreign language with the establishment of bilateral cooperation, such as Australian Development Scheme (ADS) between Indonesia and Australia in terms of overseas training. This policy aims to improve the quality of teaching and learning in order to improve the learners' language performance. "The effort for improving the academic reading in the country is triggered by the present demands that those with high level of literacy skills in English often easily gain the job advertised" (Abidin Pammu et al. 2012).

Excellent performance in reading a foreign language in Indonesia is an advantage to pursue overseas training and education. However, EFL tertiary learners usually confront comprehension problems in dealing with various texts, such as narrative, argumentative, and expository text. Researchers also believe that the reading task that foreign language readers face is far more complex and demanding than native language readers since reading comprehension involves mental process, which is often culturally specific. In line with such perception, the performance of the majority of tertiary learners is still unsatisfactory in many ways. Learners' poor performance in reading is apparent in their failure to achieve the standard TOEFL score of >500 despite many years of English instruction. Past studies conducted by a number of Indonesian researchers indicated low ability of tertiary learners to comprehend English texts (Syatriana, 1998; Hamra, 1996; Kweldju, 2001). They claimed that most university graduates are not able to read with full comprehension. After ten years of English instruction, the proficiency level of students tested is still far from being satisfactory (Gunawan, 2008). Apparently, under performance of tertiary learners has raised questions about current development of teaching and learning English in Indonesia.

2. Metacognitive reading strategies

Recent account of the reading process highlights the importance of metacognitive strategies in order to gain comprehension of the difficult text. Understanding learners' reading strategies also accounts for the improvement of proficiency in reading. Shorey and Mohktari (2001), for example, confirm that in order to improve reading proficiency and to design reading development programme we need to understand the learners' reading strategies. Understanding metacognitive strategy is important because it deals with mental process which is directly concerned with the processing of information in order to learn, obtain, store, and retrieve information (Willian & Burden, 1997). On this basis, investigating the reading knowledge and strategic processes of EFL context could help improve reading instruction and to inform the reconstruction of the alternative model for proficient reading.

Metacognitive awareness generates more constructive and responsive reading tradition. Pressley & Afflerbach (1995) found that efficient and constructively responsive readers were those with higher degree of metacognitive awareness. It is central to productive learning because it includes preparing and planning, monitoring, evaluating as well as selecting appropriate use of strategies in reading (Anderson, 2005). Moreover, the use of metacognitive reading strategy ignites one's thinking and can lead to learners' improved performance (Anderson, 2002). Hattie (2009) together with Veenman and Alexander (2011) point out that metacognition is a powerful determinant in learning results. It plays a strategic role in the construction of various assessment methods and instruments. Therefore, effective and efficient learners are those who can develop metacognitive skills to enable them to manage and exploit their own learning. Current review

of research in reading strategies have revealed positive correlation between this effective use of metacognitive skills and reading performance.

3. Theoretical framework

Metacognition is the active monitoring and consequent regulation and orchestration of these processes in relation to the cognitive objects of data on which they bear, usually in the service of some concrete objectives (Flavell et al., 1977). Improvement of metacognitive skills is a key to the success of the formal operational stage and is generally fundamental in a variety of areas, such as oral skills, reading, writing, language acquisition, and social interactions (Flavell et al., 1977). Metacognition can also be understood simply as ‘thinking about thinking’ that involves the ability to reflect on what is known, what happened and the feeling associated with it. It also concerns with learners’ knowledge and their own cognitive resources, which involve behaviors such as predicting, self-questioning, paraphrasing, summarizing, rereading to clarify meaning, and retelling (Anderson, 2005). Thus, metacognitive theory deals with activities in prereading, whilst reading, and post-reading stages which should undergo during independent reading in order to facilitate comprehension and learning (Carnine, et al. (1990). Furthermore, a strategy can be combined with other strategies either simultaneously, which refers to forming strategy clusters, or in sequence, which refers to forming strategy chains (Grenfell & Macaro, 2007). Another element is concerned with metacognitive experiences that account for people’s internal responses regarding their metacognitive processing. Flavell (1979) describes metacognitive experiences as conscious cognitive or affective experiences that accompany any intellectual enterprise. In general terms, metacognition refers to the study of memory-monitoring and self-regulation, meta-reasoning, consciousness self-awareness (Dunlosky et al. 2007). All of these are used to regulate one’s own cognition in order to maximize his potential to think, learn and to evaluate. In the field of experimental psychology, metacognition is associated with monitoring that concerns with making judgment about the strengths of one’s memories. This distinction includes in a recent review of meta-memory research that focused on how findings from this domain were applicable to other areas of applied research (Dunlosky et al. 2007).

4. Overview of proficiency- related studies

There has been considerable body of research looking at the reading performance of proficient learners with insufficient information regarding less proficient learners. Some of the studies revealed a strong relationship between positive reading performance of proficient learners and their level of metacognitive awareness. The general finding revealed that good and poor readers use different strategies but poor learners use the strategies less effectively (Aldersen, 1984). However, there is a claim that both successful and unsuccessful language learners use the same kinds of strategies with different level of frequency (Anderson, 1991). In his study on learning strategies across individual differences, Mistar (2001) found that good and poor EFL students in Indonesia used similar strategies but good learners used the strategies more frequently and effectively than poor learners did. A number of research have shown that effective learners use a great variety of appropriate strategies for both receptive and productive tasks, whereas less effective learners have a smaller repertoire of strategies and often do not choose appropriate strategies for the task (Reiss, 1985; Naiman et al, 1978). In general, good learners employ strategies more consciously, more purposefully, more appropriately, and more frequently than do poor learners (Oxford & Nyikos, 1989). Jacobowitz (1990) found that skilled readers use metacognitive strategies in identifying and understanding main ideas. Unlike the unskilled readers who try to find the main ideas in the text, the skilled readers construct them. Furthermore, the unskilled readers rely much on topic sentences. The development of many years of research on metacognitive reading strategy yielded in some important revelations. Sheorey and Mokhtari (2001) examined differences in the reported use of reading strategies of native and non-native English speakers when reading academic materials. Results of the study revealed that both native

and non-native students displayed awareness of almost all of the strategies included in the survey. Janzen (1996) study revealed learners' use of simple fix-up strategies such as rereading difficult segments and guessing the meaning of an unknown word from context. Other researcher found that unskilled readers were less consistent because they failed to monitor the situation of their comprehension during reading. Skilled readers use strategies that they find effective for the kinds of tasks they need to accomplish. (Chamot, 2005). Sheorey and Mokhtari (2001) found that the main difference between skilled and unskilled readers lies in the ability to engage in deliberate activities that require thinking, flexibility in using strategies as well as constant self-monitoring. For that reason, metacognitive awareness is essential for reading comprehension and is crucial for readers to possess and evaluate. Other studies also revealed a positive correlation between the effective use of metacognitive skills and reading performance. It was claimed that the main difference between skilled and unskilled readers is the ability to engage in deliberate activities that require thinking, flexible strategies use, and constant self-monitoring (Sheorey and Mokhtari, 2001). Metacognitively skilled readers not only construct meaning but also monitor and evaluate texts (Israel, 2007). They exhibit understanding of what they read and are constantly aware of their own mental processes (Gunning, 1996). Research on metacognitive reading strategies has also revealed the profiles of effective and ineffective learners. Santana (2003) found that the strategies that marked the true difference between effective and ineffective learners were the metacognitive strategies. Successful people are good strategy users; they know how to use a variety of goal-specific tactics, execute a planned sequence, and monitor their use (Weinstein & Underwood, 1985). Poor readers are not aware of the use of strategies to monitor their comprehension of texts as well as their strategy use (Mokhtari & Reichard, 2002). The students who get the higher grade use more metacognitive strategies among the reading strategies than less successful learners do (Park, 1999).

5. Methodology

The present study employed a quantitative approach to investigate the profiles of metacognitive reading strategies of the less proficient learners. The students' metacognitive awareness of reading strategies was assessed with the Metacognitive Awareness of Reading Strategies Inventory (MARSİ) Questionnaire designed to measure the learners' awareness on three sub-scales of reading strategies. These include Global Reading Strategies (GLOB) that concerns reading strategies aimed at setting the stage for the reading act. Support Reading Strategies (SUP) concerns the use of support mechanisms or tools aimed at sustaining responsiveness to reading such as the use of learning materials and dictionary. Problem-Solving Strategies (PROB) concerns strategies used when problems arise in understanding textual information, such as checking one's understanding upon encountering conflicting information. Forty less proficient learners at the English Department, Hasanuddin University who have obtained TOEFL band score below 450, were selected as the sample for the study. The gathered data were analyzed using the Statistical Packages for the Social Sciences (SPSS), version 15.0 for Windows. Three key averages of mean score were used which are 3.5 or higher (High), 2.5 to 3.4 (Medium), 2.4 or lower (Low).

6. Results and discussion

The less proficient learners are larger in number than the proficient learners in almost all contexts of English instruction. It is essential to take account for these learners regarding their reading profiles. The metacognitive awareness of the group is addressed in the following based on the statistical findings. The interpretation and discussion focus on the three sub-categories of MARSİ with overall mean score and standard deviation and its level of awareness in each of the sub-category. The level of awareness does not necessarily imply strategic and efficient learners for this group.

6.1. Global Strategy

The global strategy is a set of reading strategy oriented that concerns global analysis of text such as setting the purpose of reading, previewing the text, and setting what to read and what to ignore. The global strategy with thirteen items has overall mean score of $M=3.16$ and standard deviation of $SD=0.605$ yielding at medium level of metacognitive awareness. Among the thirteen items, strategies 1 and 2 which refer to having a purpose in mind when reading and thinking about what one knows to aid understanding exhibit high level of awareness each with mean score of $M=3.53$ and $M=3.83$ respectively. These constructs concern with setting the aim of reading ($M=3.53$) and rising awareness to understand what to read ($M=3.83$). These results confirm that the less proficient group makes little preference of global strategy as their reading resolution on reading an expository text.

The results also show that the less proficient learners in this study did not go over the previewing process in order to capture what would be the content of the text. With the mean score at medium level ($M=3.10$), this would confirm that these learners did not have a clear picture of what the reading would be about. In other words, these learners tended to miss the direction of the reading that might hinder them to make proper guessing and prediction with unknown material. The group is also less critical and evaluative on information presented in the text as shown by item number 10 that yielded at medium level ($M=2.80$, $SD=1.18$). These learners makes little function of tables and figures to increase their understanding ($M=3.08$, $SD=1.38$). This is where the training of metacognitive awareness would be significant for this group of learners.

Another interesting item to discuss is with regard to skimming the text where the less proficient group only performed medium level of awareness with the mean score of ($M=2.43$). Skimming is an essential reading strategy that has been widely performed by skilled readers in many contexts of both ESL and EFL background. Skimming would enable the reader to capture the main idea or the theme of a reading without necessarily wasting the time to read in details. It is even quite common for the author to put the controlling idea or the topic in the first and second line at the beginning of the passage. This statistical evidence clearly confirms that the less proficient learners did not essentially employ this strategy as part of the reading process. The same thing happens to other important reading strategy such as determining what to read closely and what to ignore. The less proficient group did not significantly select this as important in their reading process as they only exhibited medium level of awareness with the mean score of ($M=2.9$, $SD=1.16$). This item is very much cognitive in nature that takes scanning as an important reading process to enable a reader to select information based on the selected key information.

The last three items (item 11($M=3.30$, $D=.99$), 12 ($M=3.55$, $SD=.93$), and 13 ($M=3.18$, $SD=.61$) also show medium level of awareness that concern monitoring comprehension, guessing and prediction as well as checking whether the guesses are right or wrong. This statistical evidence provides information if the less proficient group does not have significant preference on aspects of global strategy. In addition, with the overall mean score of ($M=3.16$, $SD=.61$) yielding at medium level of awareness, this group performs less significant practices on Global Strategy. The less effective completion of the task found in their protocol analysis in the previous chapter correlates positively if medium level of global strategy proves to be less effective in generating comprehension for this group. To sum up, these learners need training on how to improve their level of awareness for global strategy in order to make them effective and efficient learners in coping with range of reading difficulties.

6.2. Support Strategy

Support strategy is a set of strategy oriented dealing with the use of outside reference materials to support reading comprehension, such as summarizing the important information, using dictionary as well as taking notes. The less proficient group performs medium level of awareness on Support Strategy on almost all items with overall mean score of ($M=3.25$) and standard deviation ($SD=.71$). Two items out of 9 nine items that concern with underlining or circling information in the text to help comprehension ($M=3.98$) and using reference

materials to improve comprehension ($M=4.15$) exhibit high level of metacognitive awareness. There is a need to place special emphasis on item number 6 with mean score of ($M=4.15$) above because this construct receives the highest mean score. It appears that for the less proficient learners, difficult words and idiomatic expressions account for as the most influential factor in their comprehension of the text. This is where a significant different between learners with ESL background and those with EFL background.

Another distinctive construct that needs special attention is in reference to paraphrasing. It appears that paraphrasing and restating ideas using own words are not something that less proficient learners frequently perform in their reading practice. This construct with medium level of awareness has the lowest mean score of ($M=2.85$) implying that the group is often not able to construct and extract meaning from the text. The less proficient group perform significant level of awareness on the two consecutive constructs (5. *I underline or circle information in the text to help me remember it* ($M=3.98$), 6. *I use reference materials such as dictionaries to help me understand what I read* ($M=4.15$)). This high level of awareness confirms that the group makes significant function of outside reference material when reading a text.

Overall discussions confirm that these learners only employ support Strategy at medium level of metacognition. Current analysis also shows that the less proficient group of the Indonesian learners is not really metacognitively aware of their own reading process especially when they engage in reading academic text. In order to be an effective and efficient reader one needs to be at high level of awareness in all sub-categories (global, support, and problem solving). With the combination of medium and high level of awareness on any of the sub-category clearly implies that the less proficient learners in this study are not strategic learners. This finding supports the previous hypothesis that less proficient learners read different text with the same manner, and paid little attention to meta-analysis of text who tended to stress on local strategy as well as reliance on decoding and linguistic knowledge. It is also apparent from this study that encountering unfamiliar words is a major obstacle in reading comprehension for this group. To overcome the vocabulary problem, the less proficient learners generally rely on dictionary without attempting to resort on other strategies as alternative solution.

6.3. Problem Solving Strategy

Problem solving strategy is a set of reading strategy oriented that concerns the solution of reading when comprehension problem arises, such as adjusting reading speed as well as paying closer attention to a reading text. The problem solving strategy has eight (8) items that gain overall mean score of ($M=3.62$, $SD=.57$) yielding at high level of awareness. It would seem that the less proficient learners perform an overwhelming preference on problem solving strategy being more significant than the rest sub-groups of strategy, such as Global Strategy ($M=3.16$) and Support Strategy ($M=3.24$). The most significant construct that has the highest mean score on this sub-category is concerned with reading slowly but carefully certain of understanding what to read ($M=4.10$, $SD=.84$). These learners clearly show themselves as slow readers probably due several factors that concern unfamiliar expressions, lexical problem (unfamiliar words) and other reading difficulties. In contrast, item number five ($M=3.08$) that concerns with occasional stop while reading exhibits medium level of awareness with standard deviation of ($SD=1.16$). The lowest mean score ($M=3.05$) is concerned with adjustment of reading speed at medium level of awareness implying that the less proficient group only occasionally make time adjustment of their reading.

Rereading to increase comprehension when text becomes difficult is also significant with the less proficient learners in this study. With the mean score of ($M=4.00$) and standard deviation of ($SD=.88$) yielding at high level of awareness, the less proficient group performs high preference on strategy that is not popularly practised by effective and efficient learners. Rereading leads to the prolonged process of task completion which otherwise

may be attempted with a rather efficient way by manipulating effectively the compensation strategies. The less proficient group also shows an inconsistency in light with the compensation strategy with the emergence of high level of guessing unknown words on item number 16 with the mean score of (M=3.80). It seemed that this group did not effectively practise compensation strategy when we take reference to item number 15 with high reliance on rereading. This inconsistency occurs resulting from divergent variability of constraints encountered by the less proficient learners

Conclusion

It is apparent from the findings that the less proficient group performs both medium and high level of awareness on all sub-scales of MARSII inventory. Results from our study indicate that regardless of their proficiency level, learners employ metacognitive strategies in their language learning. In other words, the metacognitive strategy might have brought about explicit knowledge of strategy use, which is not yet observable in their reading performance. It could be argued that the medium level of metacognitive awareness as performed by these learners showed consistency with the previous studies that revealed that poor learners paid little attention to meta-analysis of text who tended to stress on local strategy as well as reliance on decoding and linguistic knowledge. The findings have also indicated that while the metacognitive strategy was associated with consistent increases in reported strategy use, it did not bring about corresponding increases in the observed reading performance. Among the global reading strategies, these learners appeared to use the strategies like setting purpose for reading, previewing text, determining what to read, resolving conflicting information, and confirming prediction. This indicated that less proficient learners are more interested in using top-down strategies for better comprehension during reading. They are also more interested in using reference materials like a dictionary to find the meaning of unknown words during reading, which causes interference in their reading. The findings both present important contribution to the corpus of knowledge in terms of reading profiles of less proficient EFL learners in a particular context and pedagogical implication on the importance of strategy training within Indonesian curricula.

References

- Abidin Pammu, Zaini Amir, Tengku Nor Rizan Tengku Mohd Maasum. (2012). *Metacognitive awareness in reading strategies: A case study of proficient learners at Hasanuddin University, Indonesia*. ICOSH 2012. UKM. Bangi.
- Anderson, N. (2002). The role of metacognition in second language teaching and learning. Eric Digest, EDO Retrieved from <http://www.cal.org/resources/digest/0110> and [erson.html](http://www.erson.html). 15 March 2013.
- Cahyono, Bambang Yudi & Widiati, Utami. (2006). *The teaching of EFL reading in the Indonesian context: The state of the art*. TEFLIN Journal, Volume 17, Number1, February 2006.
- Chamot, A. U. (2005). *Language learning strategy instruction: Current issues and research*. Annual Review of Applied Linguistics, 25, 112-130.
- Dunlosky, J. & Hertzog, C. (2007). *Measuring strategy production during associative learning: the relative utility of concurrent versus retrospective reports*. Memory & Cognition, 29, 247-253.
- Flavell, J. H., & Wellman, H. M. (1977). *Metamemory*. In R. V. Kail & J. W. Hagen (Eds.), Perspectives on the development of memory and cognition (pp. 3-24). Hillsdale, NJ: Erlbaum.
- Grabe, W. (2004.) Research on teaching reading. Annual Review of Applied Linguistics, 24, 44-69.
- Gunawan, M.Handi. (2008). *Teachers' understanding of EFL principles & their ability to apply the principles in teaching practice*. Paper on "globalizing Asia": The role of ELT. The sixth ASIA TEFL International Conference. Sanur. Bali (1-3) August 2008.
- Hattie, J. A. C. (2009). *Visible learning. A synthesis of over 800 meta-analyses relating to achievement*. London: Routledge.
- Jacobowitz, T. (1990.) AIM: A metacognitive strategy for constructing the main idea of text. Journal of Reading, 33(8): 620-623.
- Kweldju, S. (2001). *Vocabulary and lexicogramatical unit: Graduate students' main problems in reading their textbooks*. Linguistic Indonesia journal ilmiah masyarakat linguistik Indonesia. 1: 35-56.
- Mochtari, K. & Reichard, C. (2002). *Assessing students' metacognitive awareness of reading skills*: Journal of Educational Psychology, 94 (2), 249-259.
- Mistar, J. (2001). *English learning strategies of Indonesian university students across individual differences*. Asian Journal of English Language Teaching. 2001.11.19-44
- Naiman, N., Frohlich, M., Stern, H.H., Todesco, A. (1978). *The Good Language Learner*. Toronto. Ontario Institute for Studies in Education.

- Park, G. P. (1999). *Language learning strategies and English proficiency in Korean university students*. Foreign Language Annals, 30 (2), 211-221.
- Richards, J. C., & Renandya, W. A. (2002). *Methodology in Language Teaching: An Anthology of Current Practice*. Cambridge: Cambridge University Press.
- Santana, J. C. (2003). *Moving Towards Metacognition*. An On-line Master's thesis, Universida Panamericana, Guadalajara, available at: www.readingmatrix.com/conference/pp/proceedings2005/santana.pdf.
- Sheorey, R., & Mokhtari, K. (2001). "Differences in the cognitive awareness of reading strategies among native and non-native readers, *System* 29(4), pp.431-449.
- Shellings, G.L.M., Bernadette, H.A.M., Walter, van Hout., Veenman, Marcell V.J., Meijer, J. (2012). *Assessing metacognitive activities: the in-depth comparison of a task-specific questionnaire with think-aloud protocols*. European Journal of Psychology in Education. 16 July 2012.
- Syatriana, E. (1998). *The levels of reading comprehension of the fifth semester students of STKIP YPUP Makassar*. Unpublished Sarjana Thesis. Makassar.
- Veenman, M. V. J., & Alexander, P. (2011). *Learning to self-monitor and self-regulate*. In R. Mayer & P. Alexander (Eds.), *Handbook of research on learning and instruction* (pp. 197–218). New York: Routledge.
- William & Burden. 1997. In Ozek, Y. & Civelek, M. (2007). *A Study on the use of cognitive reading strategies by ELT students*. The Asian EFL Journal. Professional Teachers Articles. August 2006.